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HURRICANES IRMA AND MARIA MANAGEMENT REPORT

Information contained in this report reflects HQ and regional reporting from the most recently completed operational period as well as other reports provided by HQ, regional and interagency sources.

National Incident Management Objectives

Objective 1: Ensure that health and safety of the EPA responders is considered at all times.

Objective 2: Establish an incident management structure and processes employing the Incident Command System to enable effective overall management of the event with deployment of resources (staff and equipment) in a rapid, aggressive and well-coordinated manner.

Objective 3: Ensure prompt Review and Processing of Fuel Waiver requests.

Objective 4: Prepare for and provide Rapid Assessment of Industrial facilities as requested by the State or under EPA's statutory program responsibilities for CERCLA Superfund, RMP and FRP facilities. Working with our state partners, contact industrial sources within the impacted area to determine their operational status and determine what support can be provided with the monitoring of the start-up of industrial sources.

Objective 5: Prepare for and provide Rapid Assessment & Technical Assistance Drinking Water & Wastewater facilities as requested by the State or local government. EPA will support our state partners in contacting drinking water and waste water systems.

Objective 6: Prepare a Sustained Response Plan that outlines the resource and equipment needs for a long duration response.

Objective 7: Activate the Agency's Crisis Communication Plan to ensure effective and efficient coordination of all incident communications.

Objective 8: Encourage a collaborative federalism approach, where national, state and local governments interact cooperatively and collectively to solve common problems.

Objective 9: Begin Agency internal and external coordination under the National Disaster Recovery Framework regarding Recovery Support Functions in which EPA is likely to be involved.

Executive Summary

Region 2

- As of 0500 EDT September 27th, Tropical Storm Maria was 145 miles east of Cape Hatteras, NC. Maximum sustained winds were 70 mph and the storm is expected to weaken in the next 36 hours as it moves rapidly away from the east coast by the end of the week. Tropical storm force winds extend outward up to 230 miles. Tropical storm force winds have been impacting eastern NC and will affect eastern VA today. Flash flood warnings remain in effect through late tonight in northwest and southwest PR. Heavy rainfall is anticipated September 29th and September 30th for PR and the USVI.
- R2 continues to reach out and contact Caribbean Environmental Protection Division (CEPD) personnel post storm. The Director and Deputy director have been able to account for 51 of 56 employees based in PR. CID has made contact with only one of their two agents in PR.
- On September 26th, EPA issued a waiver of diesel fuel requirement, to minimize or prevent disruptions of the supply of diesel fuel effective immediately through October 15th.
- On September 26th, the Department of Health and Human Services asked for EPA's support in conducting an environmental justice analysis on potential health issues related to water and wastewater systems in PR.

Region 4

- The current schedule for management reports from R4 is Monday, Wednesday, Friday.
- A new Mission Assignment has been approved, providing funding for EPA Landfill Specialty Teams through October 3. Two R4 landfill technical specialists are mobilizing on September 27th.
- Two R4 OSCs are in Miami representing EPA in Unified Command.
- Four EPA field teams composed of OSCs, Superfund, and contractors deployed to Florida on September 25th, and have established a forward command center in Marathon Key.
- Current EPA operations consist of identification of staging areas for orphan containers, hazardous waste, and fuel and oil recovered from vessels.
- On September 25th, FDEP requested EPA's assistance in assessing the status of 1,255 non-community public water systems. Assessment activities began on September 26th.

Regional Mission Assignments and Funding

EPA Region	Mission Assignment Number	Funding Amount	Description of Assignment
Region 2	VI-17090102-EPA-01	\$10,000	ESF-10 support of the FEMA's RRCC in Colts Neck, NJ
	4335DR-VI-EPA-01	\$100,000	Activate EPA to FEMA R2 RRC in Colts Neck, NJ to support FEMA
	4335DR-VI-EPA-02	\$508,000	To perform assessment of oil and hazardous materials releases, contaminated debris and other environmental events in USVI
	4335DR-VI-EPA-04	\$10,000,000	Conduct oil and hazardous materials field operations, including cleanup and disposal of hazardous materials and oil, and response to orphaned containers in order to mitigate actual and potential threats to public health and safety.
	4335DR-VI-EPA-06	\$2,000,000	EPA provides support preparing for site-specific platforms for situational awareness; environmental data management; operational deployment plans; documentation of assessment activities and results; resource and financial tracking, accountability and cost documentation.
	PR-17090102-EPA-01	\$20,000	Activate EPA to FEMA R2 RRC and other locations as necessary for PR (pre-landfall)
	3384EM-PR-EPA-01	\$75,000	Activate EPA to FEMA R2 RRCC, EPA REOC, State EOC, JFO, PDA, and RNA Teams and other coordination venues to support FEMA response in PR
	4336DR-PR-EPA-01	\$100,000	Activate EPA to FEMA R2 RRCC and other EOCs
	4336DR-PR-EPA-02	\$508,000	To perform assessment and reconnaissance of oil and hazardous materials releases, contaminated debris and storm impacted infrastructure which may pose a threat to federal responders as well as environmental harm in PR.
Region 4	4337DR-FL-EPA-05	\$90,000	Activation for appropriate EPA personnel to perform the functions of ESF 10 w/ RRCC, IOF, JFO, FEMA's Incident Management Assistance Team (IMAT), Preliminary Damage Assessment (PDA)

EPA Region	Mission Assignment Number	Funding Amount	Description of Assignment
			Team, or other teams and locations, at the direction and coordination of FEMA.
	4337DR-FL-EPA-03	\$525,000	Activate Federal Hazardous Assessment Response Team w/resource support to conduct assessments at hazardous substances within R4
	4337DR-FL-EPA-04	\$9,000,000	Provide oil and hazardous material field response in support of FEMA response operations providing specialized expertise, conducting damage assessment of oil/hazmat waste impact evaluating hazards; and/or response, removal, or disposal of: actual and potential oil discharges, and releases of hazardous substances, pollutants and contaminants and remove pollutants from vessels in or upon navigable waters and adjoining shorelines.
	4337DR-FL-EPA-07	\$675,000	Provide funding for EPA Landfill Specialty Teams through October 3.
Total		\$23,611,000.00	

Number of Regional Personnel Involved in Response

Type	R2 Personnel	R4 Personnel	Total Regional Personnel
EPA	97	30	127
Contractors	29	11	40
Totals	126	41	167

Region 2 Significant Activities

- As of September 26th, The CEPD Guaynabo office is up and running on generator power and data, voice and cell phone services have been restored. The CEPD office in St. Thomas, USVI have been assessed to be in the same condition as post Hurricane Irma. The CEPD office in Vieques, PR has not been assessed post Hurricane Maria.
- The EPA liaison coordinating with USACE counterparts to deliver appropriate generators to labs for water quality testing; sampling and analysis will take a minimum of 24 hours once the labs are operational. **The St. Thomas lab has received its generator and is operational.** St Croix is awaiting generator installation and on the priority list. Water sampling and analysis is ongoing.
 - **St. Croix: Seven Seas water production plant is operational (1 of 162 drinking water systems); one-day emergency water supply available.**
 - **St. Thomas: Potable water service restored to all communities in east end of island and two districts.**
 - **St. John: Potable water service is available throughout the island; two days emergency water supply available.**
- **Results from nine public water facilities sampled in St. Croix on September 25th show positive results for E-coli in three systems. Disinfection of these cistern-based community systems is required. EPA sampled an additional 17 water systems on September 26th. On September 27th, EPA continues to sample and assess 23 additional facilities.**

Superfund and Oil Sites

- R2 is re-assessing Superfund and oil sites in PR and USVI as part of R2's re-deployment plan. Eighteen EPA Oil and Hazardous Materials Assessment personnel are staging in Atlanta preparing to leave for the USVI.
- The table below provides a summary of the National Response Center (NRC) reports received in impacted areas:

NRC Report Tracking						
Location	Hazardous Materials		Spills/Discharges		Other	
	Open	Closed	Open	Closed	Open	Closed
Puerto Rico	0	0	0	3	0	0
U.S. Virgin Islands	0	2	0	1	0	0
Open means response status unknown or currently responding. Closed means response addressed by owner-operator or Federal, State, or local agency; no EPA assistance requested.						

SUPERFUND SITES (NPL, Removal and Oil)						
PUERTO RICO						
Site	Type	Phase 1	Phase 2		Phase 3	All Phases Completed
		Post-Storm Assessment	Site Inspection Needed	Inspected	Additional Response Action	
Arecibo Battery Recycling Corp.	Removal & NPL*	9/21	No	Yes	No	9/21

* These are Sites that have both, a Removal and Remedial program action. Only one assessment will be conducted per Site.

Regulated Facilities

- On September 26th, the Regulated Facility Team (RFT) sent requests for update to approximately 205 RMP, FRP, and SPCC facility representatives in PR and the USVI. The RFT continues to tabulate the responses, and to directly contact companies that have not yet responded to the post-storm assessment.
- On PR, USCG and EPA petroleum facility assessments commenced on September 25th and initial assessments show limited damage with no evidence of major spills.
- The RFT, in coordination with the Regional Emergency Operations Center (REOC), is providing compliance assistance to facilities.

Puerto Rico:

Facility Type	Sites Identified	Pre-Maria Remote Assessment	Post Maria Remote Assessment	Post Maria Field Assessment	Follow-up Action Required
RMP	56	56*	0	0	0
FRP	22	22*	0	0	0
SPCC (non-FRP)^	232 [#]	232 [#] *	0	0	0
Total	310[#]	310[#]	0	0	0

USVI:

Facility Type	Sites Identified	Pre-Maria Assessment	Post Maria Assessment	Post Maria Field Assessment	Follow-up Action Required
RMP	1	1*	0	0	0
FRP	6	6*	1	0	1
SPCC (non-FRP)^	57 [#]	57 ^{#*}	0	0	3
Total	64[#]	64[#]	1	0	4

*Pre-Hurricane email requested facilities to self-identify any pre-existing compromised conditions (construction at process areas, tank maintenance, etc). No facilities reported pre-existing compromised conditions.

^ Based on Post-Hurricane oil spill/chemical release/damage assessment email and phone calls. No facilities have reported oil spills, chemical releases, or upset/damage conditions that could lead to oil spill or chemical release.

This number reflects the number of known non-FRP SPCC facilities believed to be active.

Drinking Water / Wastewater (DW/WW) Assessments

On VI

- USVI Department of Planning and Natural Resources (DPNR) and EPA created a priority list for drinking water systems sampling. DPNR has asked EPA to conduct sampling, especially bacteria and analysis. Starting September 26th, DPNR will start assessment on the west part of the Island.
- On September 23rd, R2 issued an emergency order to FEMA and DOD to provide drinking water treatment services on VI. FEMA and DOD are working to deploy reverse osmosis units in St. Croix to deliver drinking water.

On PR

- On September 26th, two EPA/CEPD assessment teams assessed 3 drinking water/wastewater facilities and on September 27th, the teams plan to assess 5 additional facilities. Out of PRASA's total of 52 facilities, 9 are operational, 19 are non-operational, and 24 have an unknown operational status. The status of the PRASA facilities as of September 27th is below.
- In PR, 44% of population are without drinking water service. PR has an island wide boil water order. A list of all impacted DW/WW facilities is being prepared to facilitate distribution of generators and/or other repair equipment. PRASA labs are not functioning due to power and damage issues. PRASA has people to perform sampling but no labs. PRDOH has laboratory capability but needs supplies.

Region	Area	Plant Name	Generator		Plant in Operation
			EGU	AEE	
EAST	CAGUAS	PA AGUAS BUENAS			X
	CAGUAS	PA CAGUAS	X		
	CAGUAS	PA PARCELAS BORINQUEN			X
	CAYEY	PA AIBONITO	X		
	CAYEY	PA BARRANQUITAS			X
	CAYEY	PA CAYEY	X		
	CAYEY	PA COMERIO	X		
	FAJARDO	PA CULEBRA			X
	FAJARDO	PA FAJARDO NUEVA			X
	FAJARDO	PA RIO GRANDE STATES			X
	FAJARDO	PA VIEQUES			X
	HUMACAO	PA HUMACAO	X		

	HUMACAO	PA YABUCOA	X		
	CAGUAS	PA FAJARDO			X
METRO	BAYAMON	PA BAYAMON			X
	CAROLINA	PA CAROLINA			X
	SAN JUAN	PA PUERTO NUEVO			X
NORTH	ARECIBO	PA ARECIBO	X		
	ARECIBO	PA CAMUY HATILLO	X		
	ARECIBO	PA JAYUYA NUEVA			X
	ARECIBO	PA LARES	X		
	ARECIBO	PA UTUADO NUEVA			X
	MANATI	PA BARCELONETA			X
	MANATI	PA CIALES			X
	MANATI	PA MOROVIS	X		
	MANATI	PA UNIBON	X		
	MANATI	PA VEGA BAJA			X
	TOA ALTA	PA COROZAL	X		

	TOA ALTA	PA DORADO			X
	TOA ALTA	PA NARANJITO			X
	TOA ALTA	PA TOA ALTA			X
	TOA ALTA	PA VEGA ALTA	X		
WEST	AGUADILLA	PA AGUADA - AGUADILLA		X	In operation
	AGUADILLA	PA ISABELA	X		In operation
	AGUADILLA	PA SAN SEBASTIAN NEW		X	In operation
	AGUADILLA	PA SAN SEBASTIAN OLD		X	In operation
	MAYAGUEZ	PA LAS MARIAS		X	In operation
	MAYAGUEZ	PA MARICAO		X	In operation
	MAYAGUEZ	PA MAYAGUEZ		X	In operation
	SAN GERMAN	PA LAJAS		X	In operation
	SAN GERMAN	PA SAN GERMAN		X	In operation
SOUTH	COAMO	PA OROCOVIS			
	COAMO	PA SANTA ISABEL			

	GUAYAMA	PA GUAYAMA			
	GUAYAMA	PA MAUNABO			
	GUAYAMA	PA PATILLAS			
	PONCE	PA ADJUNTAS			
	PONCE	PA PONCE			
	YAUCO	PA GUANICA			
	YAUCO	PA GUAYANILLA			
	YAUCO	PA PEÑUELAS			
	YAUCO	PA YAUCO			

PR Air Monitoring Activities

- On September 25th, EPA made contact with EQBs air quality program. The ambient air quality monitoring network was taken offline prior to Hurricane Maria landfall. Staff will perform an assessment on the status of the network once employees are able to return to the office, which may occur as early as September 26th.

Debris Recovery

On VI

- As of September 26th, on St. Thomas, USACE estimates 400,000 cubic yards of debris and removal operations scheduled to begin October 1st; on St. John, USACE estimates 150,000 cubic yards of debris and removal operations scheduled to begin on October 8th; and on St. Croix, USACE estimates 750,000 cubic yards of debris and removal operations dates are not available.
- The VI debris work group is planning a debris burn and have been meeting with the USACE and FEMA EOC in St. John about air monitoring and sampling protocols associated with debris burns. No decision has been made on burn operations. EPA may also assist with medical waste issues related to potential closures of the St. Croix and St. John hospitals.

- The governor of USVI will announce a plan and public guidance for debris removal for the islands on September 27th.

Region 4 Significant Activities

- The Key Largo Water Team completed FDEP-assigned assessments and met with utility personnel regarding the operational status of their drinking water system. The Naples Water Team completed FDEP-assigned projects with visits to two public water systems and a wastewater system. Pending receipt of new assignments, EPA Water Team members will demobilize on September 28th.
- On September 26th, R4 was released from staffing the ESF-10 Desk at the State Emergency Operations Center.

Orphan Container and Pollution Response

EPA Orphan Container Collection Summary						
County, FEMA Branch, Division	Propane Tanks	Automobile Batteries	Oil and Gas (gallons)	Miscellaneous Waste (55-gal Drums)	Uncharacterized (55-gal drums)*	Tanks
Collier County (FEMA Branch IV, Division E)	33	30	220	58	13	5
* Waste will be characterized for disposal profile.						

Drinking Water / Wastewater (DW/WW) Assessments

- The FDEP is developing plans for assessing the status of 3,561 non-community public water systems and the plan was expected to be submitted to the USACE/R4 FAST on September 25th.

Status of Community Drinking Water Systems (CWS) and Total Population Served in Florida

	Large CWS (Over 3,300)		Small CWS (under 3,300)	
	# Systems	Population Served	# Systems	Population Served
Operational:	394	19,205,380	1,192	683,098
Partially	2	83,084	15	16,284
Non Operational:	0	0	3	255
Unknown:	0	0	34	10,916
Totals:	396	19,288,464	1,244	710,553
Boil Water Notices	98 (478 issued – 380 rescinded)			

Number and Status of POTWs within Florida

	NPDES Permitted Facilities		State Permits (Non-NPDES)
	POTW	Non-POTW (Industrial)	
Operational:	143	242	1711
Partially Operational:	2	1	40
Non Operational:	0	0	92
Unknown:	0	0	166
Totals:	145	243	2,009

EPA Headquarters Significant Activities

- The HQ EOC is activated to Level 1 in support of EPA Region 2 and Region 4 responses to Maria and Irma. The HQ EOC is coordinating on several levels with EPA R2, EPA R4, and other Federal agencies. The HQ EOC has deployed personnel to the FEMA NRCC to staff the ESF #10 desk. EPA Senior Management that comprise the Policy Coordination Committee (PCC) developed and issued senior management objectives that form the basis of field strategy and tactics in response to Maria and Irma.

Personnel	AO	OAR	OARM	OCFO	OCSPP	OECA	OEI	OGC	OLEM	ORD	OW	PIO	ATSDR	Totals
Employees	0	1	1	0	0	1	1	0	11	0	1	1	0	17
Contractors	0	0	0	0	0	0	0	0	1	0	0	0	0	1
Total	0	1	1	0	0	1	1	0	12	0	1	1	0	18

Other EPA Activities

OECA Civil/CID

- No Action Assurances
 - On September 21st, OECA issued three NAAs, extending Florida's existing NAAs for truck loading, vapor recovery, and roof landing until October 6th. Additionally, they issued an extension to the waiver for red-dyed diesel fuel until October 6th.
- Orders
 - On September 23rd, R2 issued an emergency order to FEMA and DOD to provide drinking water treatment services on the USVI. The Order terminates on October 7th. FEMA and DOD are working to deploy four treatment units to St. Croix.
- Enforcement Discretion
 - On September 23rd EPA announced that it will exercise enforcement discretion for mobile power generators being imported into the United States that will be used as emergency sources of power in PR as a result of Hurricane Maria. This no action assurance covers mobile power generators that are imported for use in PR until January 31, 2018.
- Waivers
 - On September 26th, the EPA waived diesel fuel requirements to minimize or prevent disruptions with the supply of diesel fuel for mobile non-road generators and pumps used for emergency purposes in PR effective immediately through October 15th.
 - EPA HQ, Region 4 and the State of Florida are working to evaluate and respond to additional fuel waiver extension requests.

Communications

- R2, R4, and HQ activities related to Irma and Maria response efforts are available at: <http://www.epa.gov/hurricane-irma> and www.epa.gov/hurricane-maria, respectively.
- The HQ EOC Public Information Office continues to work with OLEM to develop fact sheets to inform people about issues related to returning after the storms. Topics covered include: household hazardous waste, construction debris, etc.
- On September 26th, the HQ PIO issued two news releases updating on recovery efforts for Hurricanes Maria and the EPA-approved Emergency Fuel Waiver in PR, respectively.
- A PIO and a CIC are scheduled to deploy to PR as early as October 2nd.

Congressional Inquiries

- Staff from Congressman Brian Mast contacted EPA HQ to inquire whether EPA field personnel could meet with the Congressman this week to discuss Irma related water quality issues. HQ forwarded the request to the Regional Administrator's office. Originally scheduled for September 27th, this meeting is being rescheduled